

REMARKS

I. Status of the Application

Claims 1-7 were pending in the application. All of claims 1-7 stand rejected.

With this Amendment, claims 1, 2 and 5 have been amended. Claims 3-4 and 6-7 have been canceled without prejudice or disclaimer. No new matter has been introduced, and thus, entry and consideration of this Preliminary Amendment are respectfully requested.

II. Response to 35 U.S.C. § 102(b) claim rejections:

Claims 1-3 and 5-7 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Shinbata (U.S. 2002/00114504 A1, hereafter “Shinbata”). More specifically, the Examiner alleges that each and every limitation of claims 1-3 and 5-7 are anticipated by Shinbata.

With this amendment, claims 3 and 6-7 have been canceled without prejudice or disclaimer. Claims 1, 2 and 5 have been amended. As a result, Applicants respectfully request reconsideration of the present application in view of the amended claims now presented herein.

The claimed invention, as amended, includes that the predetermined region is set at a position apart from the low-pixel-value-region side of the image (having already been subjected to sort-processing) by a distance corresponding to the spinal region. As a result, the imaged region does not include pixels corresponding to bone. Further, even if this region includes a gas region, the effect of the gas may be reduced since, as a result of the sorting, the gas region is shifted toward the high-pixel-value-region side. Therefore, by using the pixel value in the region for gradation transformation processing, the effect of the spinal and gas regions may be reduced so that the gradation of the abdominal image can be stably realized.

The Shinbata reference discloses an imaging technique wherein an image including a bone region is sorted so as to separate the bone region and the soft tissues region from each other, and then a predetermined region is set as a bone region so that pixel values of the bone region may be extracted therefrom. However, while the technique disclosed in Shinbata may be effective for the gradation transformation of the bone, it is not effective for the gradation transformation of the abdomen part. More specifically, since the diagnostic region in abdomen is a region including both internal organs and bone, the gradation of the region of internal organs in abdomen is not stable if the gradation transformation is processed based on the bone regions.

In view of the above, Applicants assert that claims 1, 2 and 5 are distinguishable from Shinbata, and respectfully request that the 35 U.S.C. §102(b) rejection now be withdrawn.

III. Response to 35 U.S.C. § 103(a) claim rejection:

Claim 4 was rejected under 35 U.S.C. §103(a) as being unpatentable over Shinbata in view of Isobe *et al.* (U.S. 5,995,108, hereafter “Isobe”). More specifically, the Examiner alleges that claim 4 is obvious in view of the combined Shinbata and Isobe references.

With this amendment, claim 4 has been canceled without prejudice or disclaimer. As a result, Applicants respectfully request that the 35 U.S.C. §103(a) rejection be withdrawn.

CONCLUSION

Based on the foregoing amendments and remarks, Applicants respectfully request reconsideration and withdrawal of the rejection of claims and allowance of this application.

AUTHORIZATION

The Commissioner is hereby authorized to charge any additional fees which may be required for consideration of this Amendment to Deposit Account No. 13-4500, Order No. 1232-5203.

In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account No. 13-4500, Order No. 1232-5203.

Respectfully submitted,
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